

CLAIMS:

1. A method for diagnosing infertility in a mammal, comprising the steps of:
 - a) detecting the presence and level of a β_3 integrin subunit in an endometrium sample of a mammal at a plurality of stages of the endometrial cycle; and
 - b) correlating delayed appearance or a reduced level of β_3 integrin subunit expression with infertility.
2. The method of claim 1, wherein expression is monitored during a plurality of stages of the endometrial cycle.
3. The method of claim 1, wherein the sample of endometrium is obtained surgically.
4. The method of claim 3, wherein the sample is obtained by a biopsy or by a dilation and curettage.
5. The method of claim 1, wherein the sample of endometrium is obtained nonsurgically.
6. The method of claim 5, wherein the sample is obtained by a uterine washing or by a uterine brushing.
7. The method of claim 1, wherein the β_3 subunit is combined with another integrin subunit.
8. The method of claim 7, wherein the other integrin subunit is α_v .
9. The method of claim 1 wherein the stages of the menstrual cycle are selected from the group consisting of follicular phase and secretory phase.
10. The method of claim 1, wherein the endometrium sample is selected from the group consisting of:
 - a) endometrium expressing a β_3 integrin subunit;
 - b) endometrium not expressing a β_3 integrin subunit; and
 - c) endometrium expressing a β_3 integrin subunit and endometrium not expressing a β_3 integrin subunit.

11. The method of claim 8, wherein the endometrium sample is selected from the group consisting of:

- a) endometrium expressing a $\alpha_v\beta_3$ integrin;
- b) endometrium not expressing a $\alpha_v\beta_3$ integrin; and
- 5 c) endometrium expressing a $\alpha_v\beta_3$ integrin and endometrium not expressing a $\alpha_v\beta_3$ integrin subunit.

12. The method of claim 1, wherein the endometrium sample is selected from the group consisting of:

- a) endometrium tissue;
- 10 b) endometrium epithelial cells;
- c) endometrium tissue extract; and
- d) endometrium epithelial cell extract.

13. The method of claim 1, wherein the endometrium sample is partially digested with enzyme.

15 14. The method of claim 13, wherein the enzyme is collagenase.

15 15. The method of claim 1, wherein the β_3 integrin is detected by a technique selected from the group consisting of immunohistochemistry, immunoblotting, Western blotting, Northern blotting, electrophoresis, immunoperoxidase staining, fluorescein labeling, biotinylation and reacting
20 with diaminobenzadine.

16. The method of claim 1, wherein the β_3 integrin is detected by its molecular weight.